The second great division of Maryland, which may be made for the sake of convenience in its Geological examination, will embrace that portion of territory lying between the line already defined (page 13,) as limiting the upper part of the Tertiary formation, and another drawn through the state from N. E. to S. W. passing along the summit of Parr's Spring Ridge, and coinciding nearly with the western limits of Baltimore, Anne-Arundel, and Montgomery counties. This division will thus comprise the upper part of Cecil county, the greatest portion of Baltimore and Harford counties, the upper districts of Anne-Arundel county, and the whole of Montgomery county. Its geological characters, are that it consists of stratified rocks, varying in mineral composition alternating with each other, and sometimes passing one into another, in such a way as to render it very difficult to affix definite names to their different mixtures. When any of these rocks are viewed singly, they will rarely be found to present a simple mineral substance, constituting a large tract of country. They are, on the contrary, admixtures of several minerals; the principal of which are, Quartz, Felspar, Mica, Hornblende, Lime, Magnesia, Talc, &c. and according to the nature of their aggregation, and the predominance of one or the other, the rocks themselves are described in the systems by different names, as Granite, Gneiss, Mica-Slate, Hornblende-rock, Limestone, Magnesian-limestone, Serpentine, Steatite (soapstone,) &c. These rocks are generally *metalliferous*, and as a groupe are usually called *primitive* or *primary* rocks.

If, first, we inquire into the nature of the *soil* by which these rocks are covered, it seems proper to base this inquiry upon the consideration that the soil (so far as its mineral constitution is concerned) is produced by the disintegration of the rock which immediately underlays it: whenever observed to be otherwise it is presumed that it will always be found to have arisen, either from the circumstance of an encroachment of the tertiary formation upon the primary, or from partial transportations of soil from one spot to another by causes always appreciable. This view it is deemed important to take, as the only one calculated to lead to any general and positive results of value to agriculture. Thus, every farmer in Baltimore county is aware of the higher estimate which is put upon the *Red soil* of some districts, than upon the lighter colored soils of an adjoining one. Now, the *red soil*, as it is termed, is known to be